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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,038	09/09/2003	Ge Zhu	HYM-001-2	3279
22888 7590 01/30/2007 BEVER HOFFMAN & HARMS, LLP TRI-VALLEY OFFICE 1432 CONCANNON BLVD., BLDG. G LIVERMORE, CA 94550			EXAMINER PHILIPPE, GIMS S	
			ART UNIT	PAPER NUMBER
			2621	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/30/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/659,038

Applicant(s)

ZHU ET AL.

Examiner

Gims S. Philippe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 15, 20-24, 28-33 and 39-44 is/are rejected.
- 7) ☒ Claim(s) 7-14, 16-19, 25-27, 34-38, 40-43, 45-47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

### DETAILED ACTION

This is a first office action in response to application no. 10/659,038 filed on September 9<sup>th</sup> 2003 in which claims 1-47 are presented for examination.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 15, 20-24, 28-33, 39 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward et al. (US Patent no. 6,061,100).

Regarding claim 1 and 32, Ward discloses the same system and method of detecting still pixels in a video stream having a plurality of fields including an early field having an early current pixel and a late field having a late current pixel (See Ward Abstract), the method comprising defining a first window of pixels of the late field, wherein the first window includes the late current pixel (See col. 6, lines 58-66, col. 5, lines 63-65), performing a first window still pixel test using the pixels of the first window (See Ward fig. 7, col. 7, lines 8-27), defining a second window of pixels of the late field, wherein the second window includes the late current pixel (See fig. 3, and col. 7, lines 11-30), and

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performing a second window still pixel test using the pixels of the second window (See col. 7, lines 28-45). The applicant should note that the matrices shown in fig. 3 define the first and second windows. In addition, the frame is divided into two fields wherein the delayed field is the late field, and the current field is the early field as seen in col. 5, lines 60-67 and col. 6, lines 1-5.

As per claims 15, 24, 39, and 44, Ward discloses the same system and method of detecting still pixels in a video stream having a plurality of fields including an early field having an early current pixel and a late field having a late current pixel (See Ward Abstract, col. 5, lines 63-65), the method comprising defining a first window containing a first plurality of pixels, wherein the first plurality of pixels includes the late current pixel (See col. 6, lines 58-66), calculating a pixel pair difference for each pixel in the first window to generate a plurality of pixel pair differences (See col. 8, lines 50-54 and col. 9, lines 41-47), summing the absolute values of each pixel pair difference that is greater than a summation threshold to create a correlation sum of the first window (See col. 6, lines 12-42), comparing the correlation sum of the first window with a correlation threshold, wherein the late current pixel is classified as a still pixel when the correlation sum divided by a size of the first window is less than or equal a correlation threshold (See col. 6, lines 44-67 and col. 7, lines 1-7). The applicant should note that the step of comparing the correlation of the target pixel with its surroundings must inherently be compared to a correlation threshold. In addition, the number of pixels making up the matrix will determine the window size.

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As per claims 2 and 33, most of the limitations of these claims have been noted in the above rejection of claims 1 and 32. In addition, Ward further discloses a late current pixel being a still pixel when the late current pixel passes the first window still pixel test or the second window still pixel test (See col. 6, lines 58-67 and col. 7, lines 1-7).

As per claims 3-6, 20-23, 28-31, most of the limitations of these claims have been noted in the above rejection of claims 1 and 32. In addition, Ward's fig. 1 shows the scan line where the pixels of the first window may be formed (See col. 5, lines 60-67 and col. 6, lines 1-5).

3. Claims 7-14, 16-19, 25-27, 34-38, 40-43, 45-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mancuso et al. (US Patent no. 6600839) teaches non-linear adaptive image filter for filtering noise such as blocking artifacts.

Lin et al. (US Patent Application Publication no. 2004/0208384 A1) teaches method for motion pixel detection with adaptive thresholds.

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Naito (US Patent no. 6,512,792) teaches moving image encoding apparatus with a quantization step size different from the dequantization step size.

Le Clerc (US Patent no. 6,307,888) teaches method for estimating the noise level in a video sequence.

Nakatani et al. (US Patent no. 5,296,937) teaches image processing apparatus using recursive filters.


Mori et al. (US Patent no. 7,139,008) teaches display method and display apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S. Philippe whose telephone number is (571) 272-7336. The examiner can normally be reached on M-F (10:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dastouri Mehrdad can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Gims S Philippe  
Primary Examiner  
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GSP

January 25, 2007